SELECTIVE ELECTRO-PLATING ETCHING OR ELECTRO-MACHINING

Patent number: GB1521130

Publication date: 1978-08-16

Inventor:

Applicant: STANDARD TELEPHONES CABLES LTD

Classification:

- international: C25D5/02; C25D5/20; C25F3/02

- european: C25D5/02; C25D5/20

Application number: GB19750049405 19751202

Priority number(s): GB19750049405 19751202

Also published as:

FR2333876 (A1)
ES453877 (A)
BE848966 (A)

Abstract of **GB1521130**

1521130 Selective electro-plating, etching or electro-machining STANDARD TELEPHONES & CABLES Ltd 30 Nov 1976 [2 Dec 1975] 49405/75 Heading C7B Conductive workpieces are selectively electro-plated e.g. connector parts mounted on a moving band, by at least partially immersing cathodically connected workpieces in a plating bath e.g. Ni and Au plating tanks, whilst selectively subjecting immersed portions of the workpieces to ultrasonic radiation of a wavelength shorter than the shortest dimension of the irradiated portions so that no cavitation of electrolyte is produced. The ultrasonic radiation may be generated from a lead zirconate/ titanate Piezo-electric transducer driven from an oscillator via an RF amplifier, the transducer resonating at the oscillator frequency; a polymethyl methacrylate lens may be mounted in front of the transducer. The process is also applicable to selective electro-machining and etching e.g. for producing Cu printed circuit board.

Improvements in or relating to electroplating

Patent number: GB566776
Publication date: 1945-01-12
Inventor:
Applicant: MAURICE STUART LANE
Classification:
- international:
- european: C25D5/02
Application number: GB19430009271 19430609
Priority number(s): GB19430009271 19430609

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Abstract of **GB566776**

566,776. Electroplating. LANE, M. S. June 9, 1943, No. 9271. [Class 41] Metal is electro-deposited on a cracked or disfigured area of a metal article, such as a casting, by arranging the article with the surface of the part to be treated uppermost, applying thereto an upstanding encircling wall of thermoplastic material such as pitch, preferably with a stop-off layer intervening, heating the junction of the wall and surface to form a liquid - tight joint and provide a cell 10 which is filled with electrolyte suitable for effecting the deposition, the cell containing an anode 12 and the article being made the cathode. The surface to be treated may be given an anodic etching in an acid bath and an initial grinding or scouring treatment, and if a gaping crack 11 is present, this may be filled with dental plaster which is non-conducting or inert to the etching bath ; after etching, the cell is washed out and plating baths introduced to produce in turn deposits of nickel and copper in the case of a cast-iron surface. For the plating, the plaster is rendered conducting or replaced by an electrically conducting filling and the sequence of operations repeated, the final plating with copper being at this stage continued for four or five days. Cracked valve seatings are plated with nickel only. The metal deposited may be inset in the cracks by widening them to form undercut grooves.